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| 09/159,817 | 09/23/1998 | ELLEN K. WESEL | PD-980189 | 5596 |

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EXAMINER

GESESSE, TILAHUN

ART UNIT PAPER NUMBER

2684

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/159,817

Applicant(s)

WESEL, ELLEN K.

Examiner

Tilahun B Gesesse

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Status of claims

1. This is in response to applicant's argument filed October 25, 2004, in which claims 11-30 are withdrawn without traverse from consideration and claims 1-10 are pending.

Response to Arguments

2. Applicant's arguments filed 10/25/04 have been fully considered but they are not persuasive for the following reasons.

On page 2, third paragraph of applicant's response to non-final rejection, applicant's argued that the applied prior art does not teach spot beams in combination provide substantially ubiquitous coverage over the land mass.

The examiner disagrees. The term ubiquitous means or defines "ubiquitous
Being or seeming to be everywhere at the same time; omnipresent¹

Araki teaches first satellite (30) and second satellite 31 as orbiting satellites and radiating plurality of spot beams 30-7 ,30-7' and 31-3' and being everywhere at the same time or omni-present at defined by a dictionary the term "Ubiquitous".

Araki teaches satellite (30) generating a first plurality of spot beams (30-7 and 30-7') and at the land mass (area 10) and satellite (33 of figure 333-1 through 33-5) radiating everywhere on area 10), see figures 1 and 3).

¹ The American Heritage® Dictionary of the English Language, Third Edition copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction and distribution restricted in accordance with the Copyright Law of the United States. All rights reserved.

On the same paragraph, applicant seems try to justify that plurality of spot beams have been segment portions and referring to figure 13.

The examiner disagrees. This feature is not at least in independent claim 1. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., plurality of spot beams have segment portions and the beam segments may be individually controlled and may be individually adjustable and are controlled as one continuous beam) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On page 3, second paragraph applicant's response to non final office action , applicant argued that Araki teaches two satellites however, the teaching directed to determining and registering the location.

The examiner disagrees. Applicant's claims are not specific to what communication takes place, simply recites satellites and plurality of spot beams and covering a land mass which overlap spot beams over a landmass. Therefore, in this regard it is irrelevant what Araki, uses the spot beams, as far as, Araki meets the claim subject matter.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

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Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

On page 4, second paragraph of response to non final office action, applicant argued that Hargis reference teaches v and k band these refer to crosslinks and not spot beam links.

The examiner disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2,5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by

Araki .

As to claim 1, **Araki** teaches a satellite system (33 and 32) operating over a land mass (a land mass 10 figures 3-4 and 7) comprising: a first satellite (33) generating a first plurality of spot beams directed at the land mass (plurality of beam directed to land mass (33-1-33-5), the first set of spot beams partially covering the land mass (33-1-33-5 set of spot beams partially covered the land mass 10, figures 3-4 and 7, column 4, lines 28-47 and column 5, lines 29-49). a second satellite (32) generating a second plurality of spot beams, at land mass (spot beams 33-6 and 33-7 of figure 3-4 and 7 column 4, lines 28-47 and column 5, lines 29-49). the first plurality of spot beams and the second plurality of spot beams in combination provides substantially ubiquitous coverage over the land mass (first set of spot beams 33-1 to 33-5 and the second plurality of spot beams 33-6 and 33-7 in combination provides substantially ubiquitous (Being or seeming to be everywhere at the same time; present: uploaded through the shadows fruitlessly like an ubiquitous spook 1) coverage over land mass on (the coverage of the land masse 10 in combination of spot beams first satellite and second satellite is substantially ubiquitous , see column 4, lines 2847 and column 5, lines 29-49 and figures 3-4 and 7).

As to claim 2, **Araki** teaches the first satellite and the second satellite is selected from the group consisting of a MEO, a GEO, IGSO (Medium each orbiting and low earth orbiting, and geo-synchronous orbiting, column 1, lines 14-30).

As to claim 5, **Araki** teaches a plurality of re-configurable spot beams (position of mobile terminal 1, is estimated by computing facility, to determine the location of mobile terminal at T , T+1 and T+2 and the orbiting information of satellite computed coverage

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area 30-7 radiated by the spot beam with BID, based on the computation spot beams are reconfigured, (column 4, lines 9-27 and figures 2 and 3).

As to claim 6, **Araki** teaches a first spot beam (33-1 to 33-5 directed at a first area (10) and a second spot beam (32-6 to 32-7) directed substantially to the first area (10) (column 4, lines 28-47 and column 5, lines 29-49 and figures 3 and 7).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki in view of Sturza (US 5,548,294).

Regarding claim 7, Araki does specifically teach spot beams having a plurality of beam segment portions. However, Sturza teaches a beam footprint having a plurality of beam segment portions (column 5, lines 56-65). It would have been obvious to a person of ordinary skill in the art at the time of invention was made to divide beam footprints into segment portions, as taught by Sturza, in order to improve condition of communication or interference that causes by motion of the earth in relative to the orbiting of satellite.

Regarding claim 8, Araki does not specifically teach the at least one of the plurality of beam segment portions being independently adjustable in response to a condition. However, Sturza discloses the Earth-fixed cell method and continuously

illuminates all of the cells 26 that are within the beam footprints 16 (see figure 5). The beams 30 are continually adjust to compensate for the effects of satellite motion, attitude changes, rotation of the Earth E and non-alignment of the satellite track with the Earth-fixed grid 20 (column 12, lines 31-36).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to adjust the beam in order to compensate the condition, as taught by Sturza, in order to improve the channels transmit through the beams to the footprint that causes to interfere due to the rotation of the earth and orbiting of the satellite.

Allowable Subject Matter

Claims 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior does not specifically teach adjust the segment portion due to the conditions are rain and heavy traffic routed through the satellite.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun B Gesesse whose telephone number is 571-272-7879. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tilahun B. Gesesse 4/5/05

**TILAHUN GESESSE
PRIMARY EXAMINER**